

AMENDMENTS TO THE CLAIMS

✓1-5. (Cancelled)

6. (Currently Amended) A method according to claim 5 and for non-geographical load balancing requests on a network, the method comprising:

_____ determining the network proximity of a requestor with respect to each of at least two servers located at different geographical locations;

_____ designating a closest one of said at least two servers by ranking said at least two servers by network proximity; and

B1 _____ directing requests from said requestor to one of said at least two servers having greatest network proximity,

_____ said network proximity being determined by at least one of latency and number of hops between said requestor and each of said at least two servers,

_____ said method further comprising directing additional requests from any source having a subnet that is the same as the subnet of said requestor to said closest server.

7. (Currently Amended) A method according to claim 5 and for non-geographical load balancing requests on a network, the method comprising:

_____ determining the network proximity of a requestor with respect to each of at least two servers located at different geographical locations;

_____ designating a closest one of said at least two servers by ranking said at least two servers by network proximity; and

_____ directing requests from said requestor to one of said at least two servers having greatest network proximity,

_____ said network proximity being determined by at least one of latency and number of hops between said requestor and each of said at least two servers,

_____ said method further comprising:

_____ monitoring the current load of each of said servers; and

directing requests from said requestor to one of said at least two servers when the current load of said one of said at least two servers is less than the current load of every other of said at least two servers.

✓ 8-9. (Cancelled)

Cont 10. (Currently Amended) A method ~~according to claim 5 for non-geographical load balancing requests on a network, the method comprising:~~

determining the network proximity of a requestor with respect to each of at least two servers located at different geographical locations;

designating a closest one of said at least two servers by ranking said at least two servers by network proximity; and

directing requests from said requestor to one of said at least two servers having greatest network proximity,

said network proximity being determined by at least one of latency and number of hops between said requestor and each of said at least two servers,

wherein said determining step comprises polling said requestor to yield at least two attributes selected from the group consisting of: latency, relative TTL and number of hops to requestor.

2 11. (Currently Amended) A method ~~according to claim 5 for non-geographical load balancing requests on a network, the method comprising:~~

determining the network proximity of a requestor with respect to each of at least two servers located at different geographical locations;

designating a closest one of said at least two servers by ranking said at least two servers by network proximity; and

directing requests from said requestor to one of said at least two servers having greatest network proximity,

said network proximity being determined by at least one of latency and number of hops between said requestor and each of said at least two servers,

wherein said determining step comprises polling said requestor using at least two polling methods selected from the group consisting of: pinging, sending a TCP

ACK message to said requestor's source address and port, sending a TCP ACK message to said requestor's source address and port 80, and sending a UDP request to a sufficiently high port number as to elicit an "ICMP port unreachable" reply.

12. (Cancelled)

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13. (Original) A method for determining network proximity, the method comprising:
saying from each of at least two servers a UDP request having a starting TTL value to a client at a sufficiently high port number as to elicit an "ICMP port unreachable" reply message to at least one determining one of said servers indicating said UDP request's TTL value on arrival at said client;

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determining a number of hops from each of said servers to said client by subtracting said starting TTL value from said TTL value on arrival for each of said servers; and

determining which of said servers has fewer hops of said client; and designating said server having fewer hops as being closer to said client than the other of said servers.

14-17. (Cancelled)

18. (Previously Amended) A network non-geographical load balancing system comprising:

a network;

at least two load balancers connected to said network; and

a requestor connected to said network;

wherein each of said at least two load balancers is operative to determine the network proximity of said requestor, and wherein at least one of said load balancers is operative to designate a ~~closest~~ one of said load balancers by ranking said load balancers by network proximity and to direct requests from either of said requestor and a subnet of said requestor to said closest load balancer,

wherein said network proximity is determined by at least two of latency, number of hops between said requestor and each of said at least two servers and server

processing capacity of each of said at least two servers.

19. (Original) A system according to claim 18 wherein said load balancers are operative to poll said requestor to yield at least two attributes selected from the group consisting of: latency, relative TTL, and number of hops to requestor.

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20. (Currently Amended) A network non-geographical load balancing system according to claim 18 comprising:

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a network;

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at least two servers connected to said network;

at least two load balancers connected to said network; and

a requestor connected to said network;

wherein each of said at least two load balancers is operative to determine the network proximity of said requestor, and wherein at least one of said load balancers is operative to designate a closest one of said at least two servers by ranking said at least two servers by network proximity and to direct requests from either of said requestor and a subnet of said requestor to said closest server,

wherein said network proximity is determined by at least two of latency, number of hops between said requestor and each of said at least two servers and said server processing capacity of each of said at least two servers;

wherein said load balancers are operative to poll said requestor using at least two polling methods selected from the group consisting of: pinging, sending a TCP ACK message to said requestor's source address and port, sending a TCP ACK message to said requestor's source address and port 80, and sending a UDP request to a sufficiently high port number as to elicit an "ICMP port unreachable" reply.

21. (Currently Amended) A network non-geographical load balancing system according to claim 18 comprising:

a network;

at least two servers connected to said network;

at least two load balancers connected to said network; and

a requestor connected to said network;

wherein each of said at least two load balancers is operative to determine the network proximity of said requestor, and wherein at least one of said load balancers is operative to designate a closest one of said at least two servers by ranking said at least two servers by network proximity and to direct requests from either of said requestor and a subnet of said requestor to said closest server,

wherein said network proximity is determined by at least two of latency, number of hops between said requestor and each of said at least two servers and said server processing capacity of each of said at least two servers;

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wherein said at least one of said load balancers is operative to designate said closest one of said ~~load balancers~~ servers by ranking said ~~load balancers~~ servers by network proximity and either of current server load and available server capacity.

22-23. (Cancelled)

24. (Previously Added) A method for non-geographical load balancing requests on a network, the method comprising:

determining the network proximity of a requestor with respect to each of at least two servers located at different geographical locations;

designating a closest one of said at least two servers by ranking said at least two servers by network proximity; and

directing requests from said requestor to one of said at least two servers having greatest network proximity,

 said network proximity being determined by at least two of latency, number of hops between said requestor and each of said at least two servers and server processing capacity of each of said at least two servers.

25. (Previously Added) A method for non-geographical load balancing requests on a network, the method comprising:

determining the non-geographical quality of the relationship between a requestor and each of at least two servers located at different geographical locations, said non-geographical quality being determined by at least two of latency, number of hops between said requestor and each of said at least two servers and server processing

capacity of each of said at least two servers;

designating a preferred one of said at least two servers by ranking said at least two servers by said non-geographical quality; and

carrying out non-geographical load balancing of requests based on said ranking.

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26. (Previously Added) A non-geographical network load balancing system comprising:

at least two servers located at different geographical locations; and

at least one non-geographical load balancer operative to assign requestors to individual ones of said at least two servers based on the non-geographical quality of the relationship between a requestor and each of at least two servers, said non-geographical quality being determined by at least two of latency, number of hops between said requestor and each of said at least two servers and server processing capacity of each of said at least two servers.

✓ 27. (Cancelled)

28. (New) A method for non-geographical load balancing requests on a network, the method comprising:

determining the network proximity of a requestor with respect to each of at least two servers located at different geographical locations;

designating a closest one of said at least two servers by ranking said at least two servers by network proximity; and

directing requests from said requestor to one of said at least two servers having greatest network proximity,

said network proximity being determined by at least one of latency and number of hops between said requestor and each of said at least two servers,

wherein said determining step comprises designating a closest one of said at least two servers by ranking said at least two servers by network proximity and either of current server load and available server capacity.